

PATENT**AMENDMENTS TO CLAIMS:**

[The listing of claims will replace all prior versions, and listings, of claims in the application:]

Listing of Claims:

[Claim 1 has been amended, and new claims 2-23 have been added.]

1. (Currently Amended) A directional audio delivery apparatus for a ~~home entertainment~~ system, comprising:
 - a ~~set-top~~ box that receives incoming encoded signals and provides decoded audio signals for use by the ~~home entertainment~~ system;
 - audio conversion circuitry that produces ultrasonic signals based on the decoded audio signals provided by said ~~set-top~~ box; and
 - a directional speaker that outputs an ultrasonic output based on the ultrasonic signals.
2. (New) A directional audio delivery apparatus as recited in claim 1, wherein said system is one of an audio system, a stereo system, a television system, a radio receiver, a Digital Versatile Disc (DVD) player, a compact disc (CD) player, and a Video Cassette Recorder (VCR) player.
3. (New) A directional audio delivery apparatus as recited in claim 1, wherein said directional speaker is repositionable with respect to said system.
4. (New) A directional audio delivery apparatus as recited in claim 1, wherein said apparatus further comprises a beam-attribute control unit operatively connected to said directional speaker, said beam-attribute control unit controls an attribute of the output of said directional speaker.

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5. (New) A directional audio delivery apparatus as recited in claim 4, wherein the attribute controlled influences the direction of the ultrasonic output of said directional speaker, or wherein the attribute controlled influences a width of the ultrasonic output of said directional speaker so that the ultrasonic output is angularly constrained based on the width.
6. (New) A directional audio delivery apparatus as recited in claim 4, wherein the attribute controlled depends on the position of a user of said audio system or a remote controller for said audio system.
7. (New) A directional audio delivery apparatus as recited in claim 4, wherein said directional speaker has a plurality of separately controllable regions, and wherein said beam-attribute control unit activates one or more of the controllable regions to control the ultrasonic output from said directional speaker.
8. (New) A directional audio delivery apparatus as recited in claim 1, wherein said directional speaker has a curved surface, which can be a curved emitting surface or a curved reflecting surface, so that the ultrasonic output produced is intentionally configured to be non-collinear.
9. (New) A directional audio delivery apparatus as recited in claim 1 further comprising one additional directional speaker to create stereo effect.

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10. (New) A directional audio delivery apparatus as recited in claim 1, wherein said apparatus further comprises a personalization unit operatively connected to said audio conversion circuitry, said personalization unit modifies the audio signals or the ultrasonic signals in accordance with an audio characteristic associated with a user of said apparatus.

11. (New) A directional audio delivery apparatus as recited in claim 10, wherein the audio characteristic is provided to said directional audio delivery apparatus in a removable, portable data storage device that can be electrically connected to said apparatus.

12. (New) A directional audio delivery apparatus as recited in claim 10, wherein the audio characteristic pertains to a hearing characteristic and/or a hearing preference associated with the user.

13. (New) A directional audio delivery apparatus as recited in claim 1, wherein said directional audio delivery apparatus further comprises:

an environmental adjustment unit operatively connected to said audio conversion circuitry, said environmental adjustment unit modifies the audio signals or the ultrasonic signals in accordance with a piece of information related to the environment in the vicinity of a user of said apparatus or a device used by the user.

14. (New) A directional audio delivery apparatus as recited in claim 13, wherein the piece of information is determined based on a position of the user, or wherein the piece of information includes a noise level.

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15. (New) A directional audio delivery apparatus as recited in claim 1, wherein the ultrasonic outputs from said directional speaker are reflected by at least two reflecting surfaces before propagating into the free space as directionally-constrained audio output.

16. (New) A method for providing directionally constrained audio to a user using a directional speaker, said method comprising:

receiving audio signals to be delivered to the user from an audio device;

receiving a beam attribute input; and

driving the directional speaker to generate the directionally constrained audio,

wherein the beam attribute input controls at least one attribute of the directionally constrained audio.

17. (New) A method as recited in claim 16, wherein said method further comprises:

converting the audio signals to ultrasonic signals,

wherein said driving includes at least driving the directional speaker in accordance with the ultrasonic signals to produce ultrasonic output for providing the directionally constrained audio.

18. (New) A method as recited in claim 17, wherein said method further comprises altering orientation of the directional speaker or a reflector associated therewith.

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19. (New) A method as recited in claim 17, wherein the beam attribute depends on a distance associated with the ultrasonic output or a position reference from an object.

20. (New) A method as recited in claim 17, wherein the beam attribute input being received is automatically provided, without user interaction.

21. (New) A method as recited in claim 17,

wherein said method further comprises providing conventional audio,

wherein the beam attribute input selects audio output from at least one of the directionally-constrained audio and the conventional audio,

wherein audio outputs are provided based on transforming the audio signals into ultrasonic signals if directionally-constrained audio is selected, and

wherein audio outputs without transforming the audio signals into ultrasonic signals if conventional audio output is selected.

22. (New) A method as recited in claim 17,

wherein the directional speaker has a plurality of segments to emit audio output;

wherein the segments can be individually controlled for emitting the audio output, and

wherein the attribute determines how at least one of the segments should emit the audio output, which affects the width or the direction of the beam.

23. (New) A method as recited in claim 17, wherein the attribute input is for increasing the frequency of the ultrasonic signals to increase the width of the beam.